

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the following remarks, is respectfully requested.

Claims 10-31 are currently pending, and Claims 10-19 are amended.

Support for changes to Claims 10-13 are found at least in Applicants' Fig. 1 and the corresponding written description. The remaining changes to the claims address minor informalities. Thus, the changes to the claims add no new matter.

The Advisory Action of August 9, 2010 (hereinafter "Advisory Action") withdrew the rejection of the claims under 35 U.S.C. § 112, first paragraph. Applicants acknowledge with appreciation the withdrawal of the rejection of the claims under 35 U.S.C. § 112, first paragraph.

The outstanding Official Action and Advisory Action rejected Claims 20-31 under 35 U.S.C. § 112, first paragraph; rejected Claims 10-14, 17, 23, 26, and 29 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent Application Publication No. 2002/0181422 to Parantainen et al. (hereinafter "Parantainen"), U.S. Patent Application Publication No. 2002/0178250 to Haartsen, and U.S. Patent Application Publication No. 2004/0219917 to Love et al. (hereinafter "Love"); rejected Claims 15, 16, 18 and 19 under 35 U.S.C. § 103(a) as unpatentable over Parantainen, Haartsen, Love, and MPEP 2144.03; rejected Claims 21, 24, 27 and 30 under 35 U.S.C. § 103(a) as unpatentable over Parantainen, Haartsen, Love, and U.S. Patent No. 5,870,380 to Diehl et al. (hereinafter "Diehl"); and rejected Claims 22, 25, 28 and 31 under 35 U.S.C. § 103(a) as unpatentable over Parantainen, Haartsen, Love, and U.S. Patent Application Publication No. 2003/0007466 to Chen.

Claim 10 is directed to a communication method for a communication system including a base station and a terminal, where the terminal transmits a data as a new data to the base station, and upon receiving an NAK signal indicating a reception failure from the

base station as a response to the transmission of the new data, the data as a retransmission data is transmitted to the base station. The method is amended to recite, *inter alia*:

a third step
for the terminal to ***transmit a plurality of data packets*** as the new data to the base station based on the value of the resource for data transmission;
and
a fourth step
for the terminal to ***autonomously retransmit a data packet from the plurality of data packets to the base station*** without sending a transmission request to the base station for a resource to autonomously retransmit the data packet ***upon reception of the NAK signal from the base station indicating transmission failure of the data packet in the third step.*** (Emphasis added).

Now turning to the applied reference, Parantainen describes a method and arrangement for transferring information in a general packet radio service (GPRS) system. Figure 4 of Parantainen illustrates downlink communication between a base station and a mobile station. Parantainen describes that upon initiation of a connection between the base station and the mobile station, data is transmitted on a downlink channel between the base station and mobile station along with information on the uplink channel to be used for acknowledgements and other signaling.¹ Parantainen further describes that if a previously transferred packet data was not successfully received by the mobile station, the base station gets this information through the acknowledgement message sent from the mobile terminal and will then retransmit the data.²

Claim 10 is distinguishable over Parantainen as the applied reference fails to disclose or suggest “a fourth step for ***the terminal to autonomously retransmit a data packet from the plurality of data packets*** to the base station without sending a transmission request to the base station for a resource to autonomously retransmit the data packet ***upon reception of the NAK signal from the base station indicating transmission failure of the data packet in the third step.***” (Emphasis added). In this

¹ See Parantainen at paragraphs [0066] to [0068] and Figure 4.

² See Parantainen at paragraph [0068].

regard, Claim 10 further recites “a third step for the *terminal to transmit a plurality of data packets* as the new data *to the base station*.” (Emphasis added).

As discussed above, Parantainen describes that a base station transmits data to the mobile station of Parantainen, and the mobile station sends an acknowledgement indicating that the data transmission was successful or unsuccessful. However, Parantainen fails to disclose or suggest that the mobile station of Parantainen transmits a plurality of data packets to the base station of Parantainen. Therefore, Parantainen fails to disclose or suggest “a third step for the terminal to transmit a plurality of data packets as the new data to the base station,” as recited in Claim 10.

Parantainen further fails to disclose or suggest that the mobile station of Parantainen *autonomously retransmits* a data packet to the base station of Parantainen upon receiving a NAK signal from the base station. That is, as discussed above, Parantainen merely describes sending, by the mobile station of Parantainen, acknowledgment signaling indicating successful/unsuccessful data transmission by the base station of Parantainen. Therefore, Parantainen fails to disclose or suggest “a fourth step for the terminal to autonomously retransmit a data packet from the plurality of data packets to the base station,” as recited in Claim 10.

Love describes autonomous scheduling in an uplink channel between a mobile station and a base station. Love describes that when traffic volume is low, the autonomous scheduling of uplink transmissions is less of a concern because the likelihood of a collision of data being simultaneously transmitted by multiple mobile stations is low. However, in the event of a collision, Love describes that there are spare radio resources available to accommodate the need for any retransmissions.³

³ See Love at paragraph [0009]

While Love describes autonomous scheduling of an uplink channel, Love fails to disclose or suggest that any retransmission on the uplink channel are *autonomous*. Therefore, Love fails to disclose or suggest “a fourth step for *the terminal to autonomously retransmit a data packet from the plurality of data packets* to the base station without sending a transmission request to the base station for a resource to *autonomously retransmit* the data packet *upon reception of the NAK signal from the base station indicating transmission failure of the data packet in the third step*,” as recited in amended Claim 10. (Emphasis added).

Applicants have considered Haartsen and submit that the applied reference fail to cure the deficiencies of Parantainen and Love. Accordingly, Applicants submit that Parantainen, Haartsen, and Love fail to disclose or suggest all the features of Claim 10 as amended. Applicants respectfully request that the rejection of Claim 10, and claims depending therefrom, under 35 U.S.C. § 103(a) be withdrawn.

As Claims 11-13 are amended to recite features analogous to Claim 10, Applicants submit that Parantainen, Haartsen, and Love fail to disclose or suggest all the features of Claims 11-13 as amended. Applicants respectfully request that the rejection of Claims 11-13, and claims depending therefrom, under 35 U.S.C. § 103(a) be withdrawn.

Amended Claim 14 recites that “the data packet is autonomously retransmitted after a predetermined time defined between the terminal and the base station has elapsed since reception of the NAK signal.” The outstanding Official Action asserts that Paragraph 50 of Haartsen discloses features analogous to those recited in amended Claim 14.⁴ However, this cited portion of Haartsen merely describes an ARQ scheme where a recipient responds with an ACKNOWLEDGMENT (ACK) if the information was received correctly or with an NAK

⁴ See Official Action of April 16, 2010 at page 5.

if it was not received correctly. The Advisory Action states that “a person of ordinary skill in the art would understand that in an ARQ Protocol ... a retransmission is sent due to a transmission failure after a ‘time out period.’”⁵ However, Claim 14 recites that “the data packet *is autonomously retransmitted* after a predetermined time ... has elapsed *since reception of the NAK signal.*” (Emphasis added). Haartsen fails to disclose or suggest that after a predetermined period of time has passed after receiving the NAK signal of Haartsen, data is *autonomously retransmitted*.

Accordingly, Haartsen fails to disclose or suggest that data is retransmitted after “a predetermined time period,” as recited in Claim 14. Applicants have considered Parantainen and Love and submit that these applied references fail to cure the deficiencies of Haartsen. Accordingly, Applicants request that the rejection of Claim 14 under 35 U.S.C. § 103(a) be withdrawn on this independent ground.

As Claim 17 recites features analogous to Claim 14, Applicants submit that Haartsen, Parantainen, and Love fail to disclose or suggest all the features of Claim 17. Accordingly, Applicants respectfully request that the rejection of Claim 17 under 35 U.S.C. § 103(a) be withdrawn on this independent ground.

The outstanding Official Action rejected claims 15, 16, 18, and 19 under 35 U.S.C. §103(a) as unpatentable over Parantainen, Haartsen, Love, and MPEP §2144.03.

As discussed above, Parantainen, Haartsen, and Love fail to disclose or suggest all the features of Claims 10-13, from which Claims 15, 16, 18, and 19 depend. Applicants have considered MPEP §2144.03 and submit that this cited portion of the MPEP fails to cure the deficiencies of Parantainen, Haartsen, and Love.

⁵ See Advisory Action of August 9, 2010 at page 3.

Application No. 10/574,607
Reply to Office Action of April 16, 2010
and the Advisory Action of August 9, 2010

Accordingly, Applicants submit that there is no *prima facie* case of obviousness set forth for Claims 15, 16, 18, and 19.

Therefore, Applicants respectfully request that the rejection of Claims 15, 16, 18, and 19 be withdrawn.

The outstanding Official Action rejected Claims 21, 24, 27, and 30 under 35 U.S.C. §103(a) as unpatentable over Parantainen, Haartsen, Love, and Diehl.

As discussed above, Parantainen, Haartsen, and Love fail to disclose or suggest all the features of Claim 13, from which Claims 21, 24, 27, and 30 depend. Applicants have considered Diehl and submit that the applied reference fails to cure the deficiencies of Parantainen, Haartsen, and Love. Accordingly, Applicants submit that there is no *prima facie* case of obviousness set forth for Claims 21, 24, 27, and 30.

Therefore, Applicants respectfully request that the rejection of Claims 21, 24, 27, and 30 under 35 U.S.C. §103(a) be withdrawn.

The outstanding Official Action rejected Claims 22, 25, 28, and 31 under 35 U.S.C. §103(a) as unpatentable over Parantainen, Haartsen, Love, and Chen.

As discussed above, Parantainen, Haartsen, and Love fail to disclose or suggest all the features of Claims 10-13, from which Claims 22, 25, 28, and 31 depend. Applicants have considered Chen and submit that the applied reference fails to cure the deficiencies of Parantainen, Haartsen, and Love. Accordingly, Applicants submit that there is no *prima facie* case of obviousness set forth for Claims 22, 25, 28 and 31.

Therefore, Applicants respectfully request that the rejection of Claims 22, 25, 28, and 31 under 35 U.S.C. §103(a) be withdrawn.

Application No. 10/574,607
Reply to Office Action of April 16, 2010
and the Advisory Action of August 9, 2010

Consequently, in view of the above amendments and present response, no further issues are believed to be outstanding. The present application is believed to be in condition for formal allowance. A Notice of Allowance is earnestly solicited.

Respectfully submitted,

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